

Illusionist

NLP, ML and workflow driven Chat Agent platform

Tingdong Chen @ Astound.ai

context

- Sales driven product
- POC
- Audient: business stakeholders
- Multi client (shared db)
- Fast development
- Flexibility

Tech Stack

Frontend: Vuejs, Bootstrap, SASS, Retejs, Webpack.

Backend:

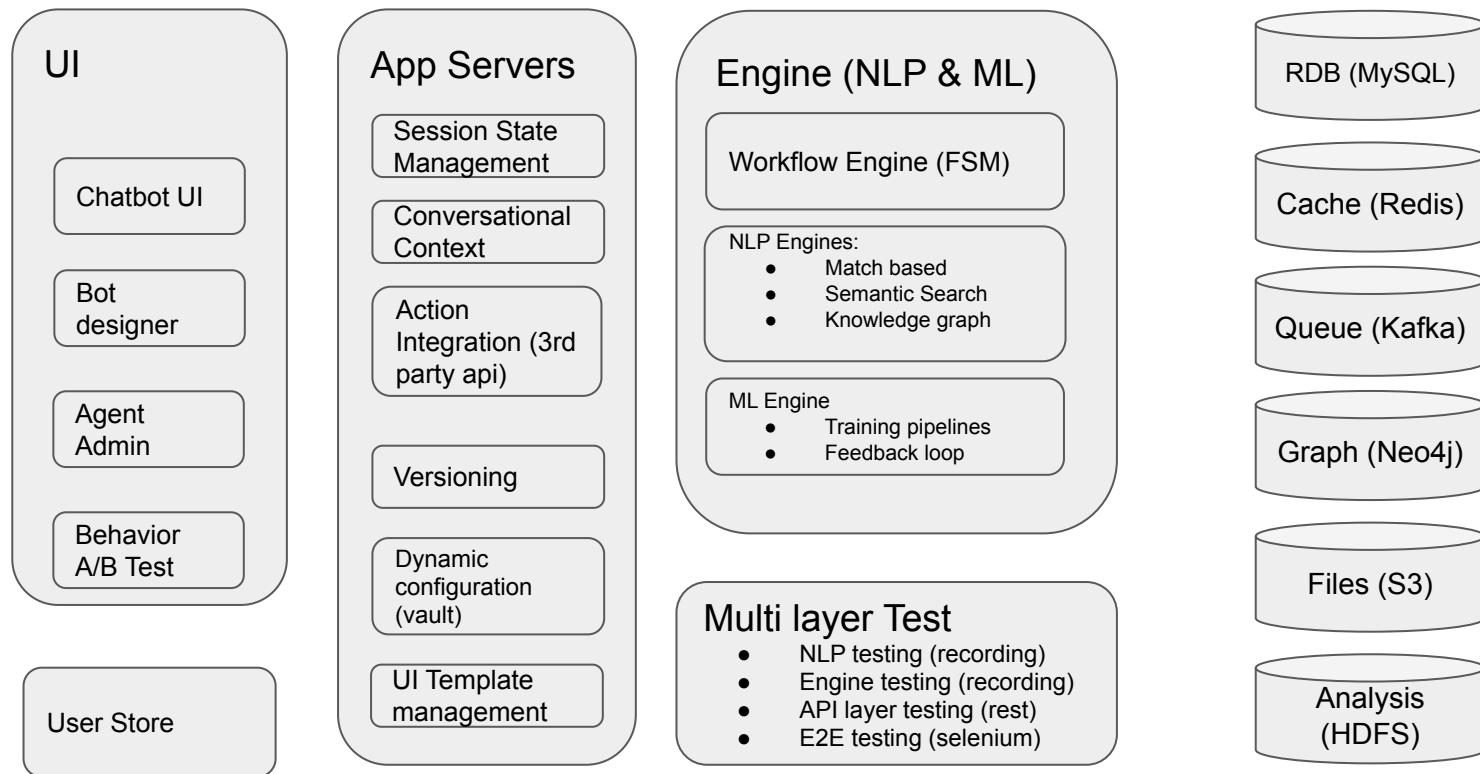
- App: Python, Flask Appbuilder, Gunicorn, SQLAlchemy on MySQL.
- Data: Redis to hold conversation context, Kafka for data pipeline.
- Core: ML and NLP engine.

Integration: through API. ServiceNow, Google, Jira, Okta, Slack.

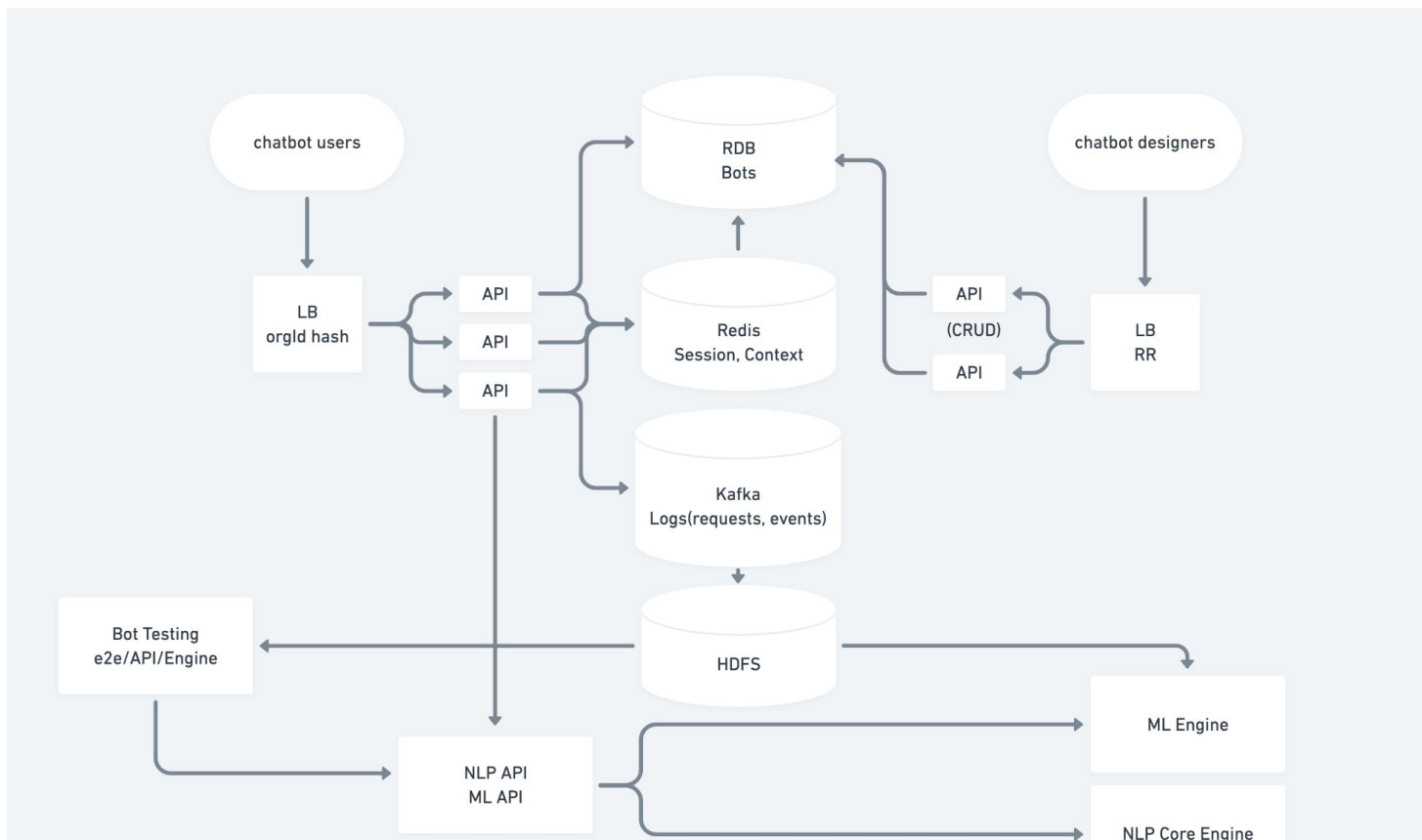
Testing: NLP conversational testing framework. Core libraries, API layer, Selenium e2e.

Deployment: AWS, Docker, Cloudera, Jenkins.

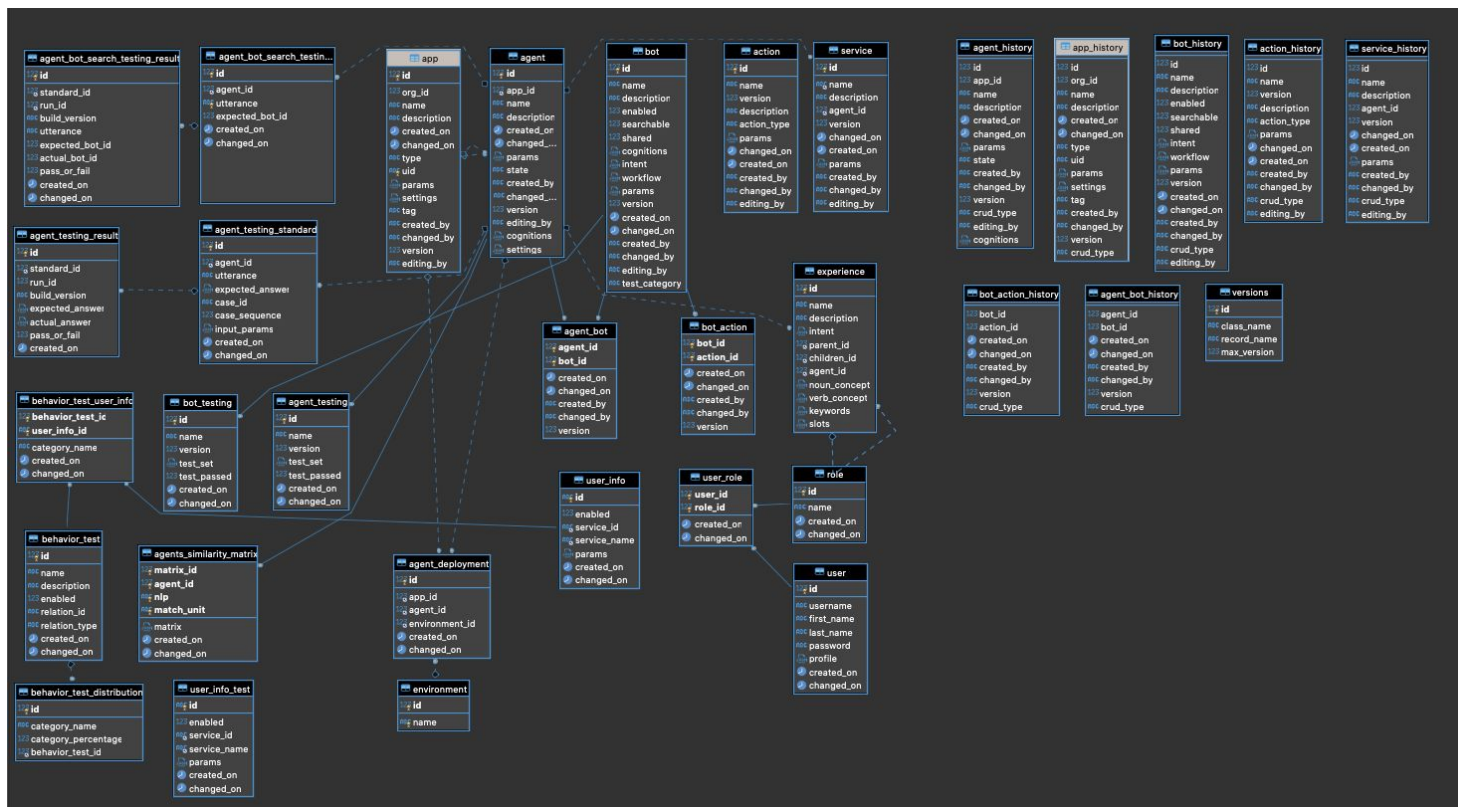
System Design



Bot design




Data model



Bots Management Overview

App -> Agent -> Bot -> Action -> Service

 Answer Designer

appsagentsbotsactionservices | SimulatorDemos▼Reporting▼

admin ↗ Sign out

Bots

New

Agent ID

Bot Name

Bot Id ↑	Enabled	Searchable	Name	Description	Agents	Domains	Test Passed	Intents
1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	hr.office.order.pizza	first action bot	41	H R	<div></div>	I want to order a pizza hungry, do you have pizza
2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	hr.vision.eye.deductable	HR demo for knowledge 18	87	H R	<div></div>	Deductible for an eye exam How much do I pay for an eye exam eye exam deductible
3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	it.software.troubleshooting.printer	demo for knowledge 18		H R	<div></div>	can't connect to printer my printer doesn't work I have printing issue
4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	it.servicenow.check.incident.status	Check incident status in Servicenow	77	I T	<div></div>	check the status of existing ticket status of my tickets
5	<input type="checkbox"/>	<input type="checkbox"/>	it.greeting.init.choices	an index bot, need to hijack greetings to use it.	87	I T	<div></div>	
6	<input type="checkbox"/>	<input type="checkbox"/>	it.servicenow.get.info	general bot for displaying info returned from luke		N U L L	<div></div>	
7	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	it.servicenow.get.help	check ticket status, update ticket, get info and create ticket.	44	I T	<div></div>	general get help
8	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	it.servicenow.check.incident.status	Check status then create a ticket.	64 71	I T	<div></div>	status of my ticket existing ticket

Bot Name

hr.office.order.pizza

Description

first action bot

☒ Enabled

☒ Searchable

Save

Delete

Clone

Agents

41 ×

Domains

H × R ×

Tags

pizza × food × hungry × Add a tag

Intents: +

I want to order a pizza ×

hungry, do you have pizza ×

Bot Name

it.servicenow.check.incident.status

Description

Check status then create a ticket.

☒ Enabled

☒ Searchable

Save

Delete

Clone

Agents

64 × 71 ×

Domains

I × T ×

Tags

incident × ticket × Add a tag

Intents: +

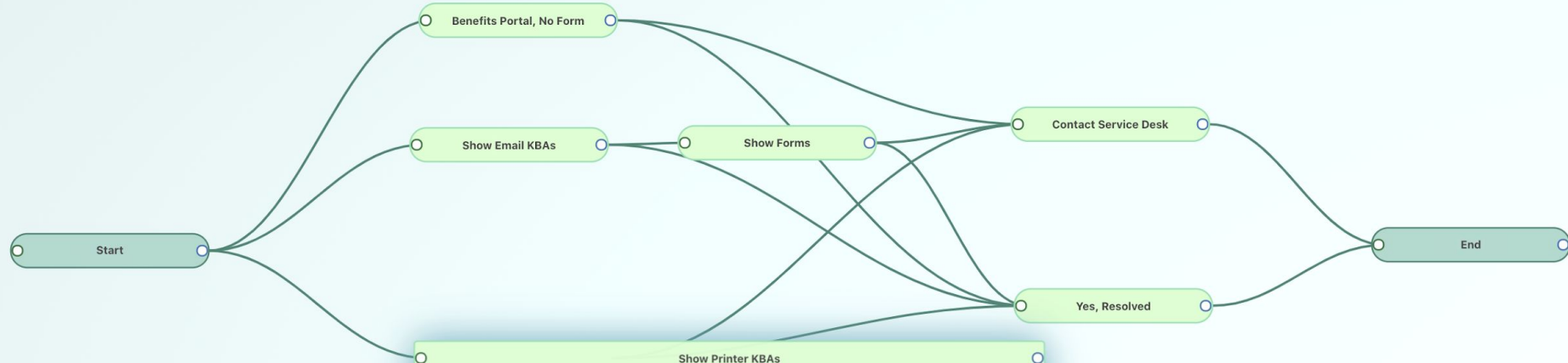
status of my ticket ×

existing ticket ×

Bot Designer - 2

Office printer troubleshooting

It.Bose.Forms.Kb.Search



Show Printer KBAs	
Utterance	<input type="text" value="connect to a printer"/>
Pretext	<div>Here is a list of knowledge articles that are most relevant to your request:
 How to find a network printer near you How to install printer drivers </div>
Context Variable	<input type="text"/>
	<div><input type="radio"/> Update <input type="radio"/> Append <input type="radio"/> Reset</div>
Transition	<input type="text"/>
Pretext For Templated Answer	<input type="text"/>

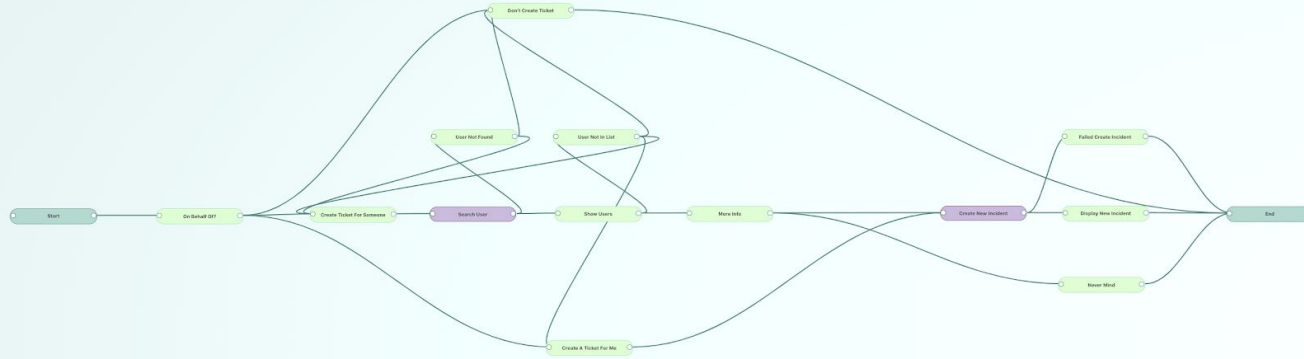
Bot Designer - Action

Integration with ServiceNow ticketing system

Answer Designer

reload + new clone save delete json | states | resize guides expand

It.ServiceNow.Get.Help



Intent Debugger

Name:

it.servicenow.get.help

Description:

This is the original adidas wogit get_help path in chirpy, represented in bot.

Domains:

IT

Tags:

ticket incident get help Add a tag

Intention Prototypes:

I want to create a servicenow ticket

☐ Enabled: false ☒ Searchable: true

created on: 2018-12-27T01:17:50

changed on: 2019-12-03T00:44:21

Agents

45

Bot Designer - Intent metadata

Office printer troubleshooting

Intent

Debugger

Name:

It.BofA.printer.not.working

Description:

Printer is broken, paper jam

Domains:

IT

Tags:

Add a tag

Intention Prototypes: +

My printer isn't working

Printer is broken

Printer broken issue

My printer is not working

Bot Debugger

real-time tools for bot designer

Intent

Debugger

Test result for current bot: Passed.



October 1st, 2020 10:45:52

order a new phone

October 1st, 2020 10:45:52

May 20th, 2019 02:26:53

I've checked your role, location, and approval policy. Here's a list of available phones you can order



LG G7
ThinQ



Bot simulator

Debugging tools for developers and data engineers



Api Input

Browser

Session Id

Organization

App Id:

User Info:

Chatbot User Id:

First Name:

Country:



Germany



United States of America

Or type it here:

Company:

Group:

Incidence



October 1st, 2020 10:48:04

hi



Workflow States

NLP Performance Reporting

Semantic similarity matrix

